

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R02-OAR-2019-0399, FRL-10002-59-Region 2]

Approval of Air Quality Implementation Plans; New Jersey; Gasoline Vapor Recovery Requirements

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency proposes to approve a revision to the New Jersey State Implementation Plan for ozone National Ambient Air Quality Standard which includes regulatory amendments relevant to the New Jersey Department of Environmental Protection's requirements for Stage I and Stage II vapor recovery systems at gasoline dispensing facilities: upgrades to Stage I controls for tank breathing and refueling systems; decommissioning existing Stage II systems incompatible with onboard refueling vapor recovery systems on or before December 23, 2020 with a demonstration that such removal is consistent with the Clean Air Act and EPA Guidance; and allowing for continued use of existing onboard refueling vapor recovery-compatible Stage II systems if facilities maintain the systems, including compliance with required testing, to ensure proper working order. The amendments also require installation of enhanced conventional dripless nozzles and low permeation hoses as part of decommissioning existing Stage II systems or as maintenance. The intended effect of the amendments is to propose approval of New Jersey's revised vapor recovery regulations. New Jersey's comprehensive submittal also included changes in amendments for its air permitting

program and t-butyl acetate emission reporting requirements, however, the EPA will be acting on these amendments under a separate action.

DATES: Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Submit your comments, identified by Docket ID number EPA-R02-OAR-2019-0399, at http://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

FOR FURTHER INFORMATION CONTACT:

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I. What is being addressed in this document?

Stage I and Stage II vapor recovery systems at gasoline dispensing facilities (GDFs) control hydrocarbon vapors, such as volatile organic compounds (VOC), at the point of the delivery truck's dispensing gasoline to storage tanks (Stage I) and during the refueling of motor vehicles (Stage II). Stage I vapor recovery systems (Stage I Systems), which have been in place nationwide since the 1970s, route displaced vapors back to the delivery truck (through either a dual-point or a single-point delivery and vent system) during unloading of gasoline from the truck to the storage tank. A dual-point system utilizes two hoses: one to deliver the product and the other to return the vapors back to the tanker truck with rotatable adapters located on the product port and the vapor port. A single-point vapor recovery system utilizes one co-axial hose that is essentially a hose within a hose, allowing product to enter and vapors to exit at the same time.

Stage II vapor recovery systems (Stage II Systems) have been required in New Jersey since 1988. They utilize nozzles and hoses, installed on the GDF dispenser, that capture the fuel vapors from the gas tank of the refueling vehicle and return the vapors to the underground or aboveground storage tank via underground piping to prevent vapors from escaping to the atmosphere. GDFs in New Jersey employ two types of Stage II Systems – vacuum-assist and vapor balance systems. Vacuum-assist systems rely on a vacuum pump in the dispensing nozzle to move vapors from the vehicle into the GDF storage tank. Vapor balance systems transfer vapors from the vehicle to the storage tank based on pressure differential. Vacuum-assist systems work best with vehicles that are not equipped with technology to capture hydrocarbon emission inside the vehicle.

Onboard refueling vapor recovery (ORVR) systems, a type of hydrocarbon emission control technology, is a carbon canister installed in automobiles to capture fuel vapors evacuated from the vehicle gasoline tank before those vapors reach the GDF pump nozzle. The ORVR captures and holds the vapors until they are combusted in the engine during operation.

Incompatibility between the ORVR and vacuum-assist Stage II Systems could result in excess emissions from the GDF storage tank. Such an incompatibility could result from the ORVR's causing the vacuum pump on the nozzle to pump air rather than gasoline vapors back to the GDF storage tank. Vapor return to the GDF can lead to vapor growth, over-pressurization of the GDF storage tank, and potentially excess emissions. Thus, Stage II vapor recovery programs have become largely redundant and potentially incompatible controls. As such, the continued use of Stage II Systems achieves a declining emission reduction as an increasing proportion of the onroad motor vehicle fleet in New Jersey comprise of ORVR-equipped vehicles.

To address the potential incompatibility, some GDFs have installed ORVR-compatible Stage II Systems; these include: vapor balance systems; vapor recovery systems with tank pressure management emission control equipment that are installed on the atmospheric vent of the GDF tank and operated in conjunction with Stage I and Stage II equipment; and vacuum assist systems that have ORVR-compatible pump nozzles.

Stage II Systems and ORVR systems were both required by the 1990 Amendments to the Clean Air Act (CAA). However, Congress recognized that the two technologies would, in time, become redundant; therefore, the CAA allows GDFs to phase out of the Stage II program as more ORVR-equipped vehicles come into use.

II. What is the background of this action as it relates to Stage II vapor recovery?

On November 29, 2017, the New Jersey Department of Environmental Protection (the State) submitted a revision to its State Implementation Plan (SIP). The SIP revision consists of the State's newly adopted New Jersey Administrative Code (N.J.A.C.) 7:27-16.3, "Gasoline Transfer Operations," (the Rule), which makes the following changes to the controls required for Phase II² vapor recovery at GDFs operating in New Jersey. For GDFs with existing ORVR-compatible Stage II Systems, the Rule allows GDFs to choose either: to decommission non-compliant systems within three years, or to continue to maintain the system as an ORVR-compatible system and comply with the requirement to test to ensure the system is working properly under N.J.A.C. 7:27-16.3(j). As part of decommissioning, under N.J.A.C. 7:27-16.3(g), each GDF with a storage tank greater than 2,000 gallons must be equipped with CARB-certified

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¹ Section 182(b)(3) of the CAA requires moderate and above ozone nonattainment areas to implement Stage II vapor recovery programs. Also, under CAA section 184(b)(2), states in the Ozone Transport Region (OTR) are required to implement Stage II or comparable measures. CAA section 202(a)(6) required EPA to promulgate regulations for ORVR for light-duty vehicles (passenger cars).

² The New Jersey Administrative Code 7:27-16.3, Gasoline Transfer Operations. It should be noted that this Federal Register notice and the EPA use the term "Stage I" and "Stage II", whereas, the State follows the terminology "Phase I" and "Phase II" that California Air Resources Board (CARB) uses, because both the existing Rule and the amendments rely upon CARB certifications.

dripless enhanced conventional dispensing nozzles and dispenser hoses that are CARB-certified low permeation hoses. An existing GDF is not required to replace nozzles and hoses immediately with CARB-certified but may make the replacements as part of maintenance if prior to decommissioning. If no nozzle is CARB-certified at the time of the installation, decommissioning, or nozzle replacement, a conventional nozzle may be installed. This reflects the latest technology and furthers the State's efforts for attainment of the ozone NAAQS.

Under CAA Section 202(a)(6), Congress provided authority to EPA to allow states to remove (e.g., decommission) Stage II vapor recovery programs from their SIPs, through a SIP revision, after EPA finds that ORVR is in widespread use nationwide. Nationally, the ORVR system has been phased in for new passenger vehicles since the model year 1998 and for light-duty trucks and most heavy-duty gasoline powered vehicles since model year 2001. Since 2006, nearly all new gasoline-powered light-duty vehicles, light-duty trucks, and heavy-duty vehicles have been equipped with ORVR systems.

On May 16, 2012, the EPA determined that ORVR systems are in widespread use nationwide for control of gasoline emissions during refueling of vehicles at GDFs (Widespread Use Rule). *See* 77 FR 28772 (May 16, 2012). The ORVR Widespread Use Rule also allowed the EPA to exempt all new ozone nonattainment areas classified serious or above from the requirement to adopt Stage II vapor recovery programs. Following promulgation of the Widespread Use Rule, the EPA issued guidance³ on how states may develop approvable SIP revisions that seek to remove Stage II programs from SIPs (the EPA Guidance). The EPA Guidance provides recommendations on how states may assess and demonstrate compliance with

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³ EPA (2012). "Guidance on Removing Stage II Gasoline Refueling Vapor Recovery Programs from State Implementation Plans and Assessing Comparable Measures,". See, https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20120807_page_stage2_removal_guidance.pdf, last accessed September 12, 2019.

relevant CAA requirements and consistency with the EPA Widespread Use Rule in decommissioning Stage II programs. First, the EPA Guidance indicates that Incremental Equation 1 may be used to demonstrate compliance with the non-interference provisions under Section 110(l) and comparable measures provisions under Section 184(b)(2) of the CAA. Second, the EPA Guidance states that Delta Equation 2 may be used to demonstrate that removal of a state's pre-1990 Stage II vapor recovery program would not constitute backsliding and that the state would be in compliance with Section 193 of the CAA.

The 2012 EPA widespread use analysis included in the EPA Guidance was based on the projected installation of ORVR systems on new model vehicles and estimates that in 2012 more than 75 percent of gasoline refueling nationwide would occur with ORVR-equipped vehicles.⁴ The State, in its November 2017 submission, estimates that by 2017 approximately 90 percent of the vehicle fleet in New Jersey will have been equipped with ORVR technology.

III. What is the background of this action as it relates to Stage I vapor recovery?

The current proposed Rule allows for strengthening Stage I Systems to include, with a few exceptions, CARB-certified Stage I enhanced vapor recovery components. The amendments allow existing GDFs one year to install a CARB-certified Stage I enhanced vapor recovery pressure/vacuum relief vent valve and seven years to comply with the remaining equipment requirements. Unlike the CARB regulations, the proposed rule does not require all the components to be approved in the same Executive Order. The State's amendments also include an exception to the CARB requirements for single-point vapor balance systems and rotatable adapters for existing systems. The State requires a dual-point vapor balance system for new

⁴ See, Appendix Table A-1 of the EPA 2012 Guidance on Removing Stage II Gasoline Vapor Control Programs from State Implementation Plans and Assessing Comparable Measures.

Stage I Systems. However, an existing facility that has already installed a single-point vapor balance system does not need to replace it with a dual-point system nor install rotatable adapters.

IV. What is the EPA's analysis of New Jersey's submission?

In reviewing the proposed SIP revision, the EPA must ensure that: 1) the State has demonstrated that the proposed action would not interfere with ozone attainment; 2) that the proposed action would achieve equivalent or greater emission reductions; and 3) that the ultimate period to remove Stage II Systems in New Jersey is during a time when the State can demonstrate *de minimis* incremental benefits. The EPA finds that the State has demonstrated widespread use of ORVR systems throughout the motor vehicle fleet and that implementation of the Rule in the proposed SIP revision would comply with CAA Sections 110(1), 184(b)(2), and 193. As outlined in the SIP revision, the modifications authorized under the proposed Rule⁵ will result in an emission reduction of approximately 3.5 tons per day of VOC. In evaluating the State's analysis, the EPA also considered previous EPA approvals of the removal of Stage II System from other SIPs to ensure consistency to similar Stage II-related SIP revisions.

The State's proposed SIP revision also includes requirements for CARB-certified Stage I enhanced vapor recovery components for tank breathing and refueling systems. The Stage I enhancements will achieve approximately 5 tons per day of VOC emission reductions.

V. What are the relevant CAA requirements for this SIP revision?

a. CAA Section 110(1) non-interference measure

CAA Section 110(l) specifies that the EPA cannot approve a SIP revision if it would interfere with attainment of National Ambient Air Quality Standards (NAAQS), reasonable further progress towards attainment, or any other applicable requirement of the CAA. The State has demonstrated through application of the Incremental Equation 1 and the Motor Vehicle

⁵ Attachment to the NJDEP SIP revision titled *Phase II SIP NJAC 7-27:16.3 Nov 28 2017.docx*.

Emissions Simulator (MOVES) model to the relevant state emissions data, in accordance with the EPA Guidance, that the combination of the widespread use ORVR-equipped vehicles and the decommissioning of ORVR-incompatible vapor control systems will not result in an actual increase of VOC emissions in the State. For purposes of the current proposed rulemaking, the incremental emissions impact derived from Incremental Equation 1 is the difference between the refueling vapors that Stage II captures from non-ORVR vehicles and associated incompatible excess emissions. The EPA Guidance calls for demonstrating "the point in time at which de minimis incremental benefits are reached." Using emissions data from a sample of urban and rural non-attainment areas (i.e., Essex, Middlesex, Camden, Ocean, and Salem counties) the State estimated this time period to be a nine-year span from 2014 through 2022. As recommended in the EPA Guidance, the State used the MOVES model to estimate the fraction of gasoline dispensed to ORVR-equipped vehicles and the fraction of annual vehicle miles traveled by ORVR-equipped vehicles. The State used the above-mentioned nine-year span⁶ and the five counties for the time and geographic parameters, respectively. Because a small, but declining, number of non-ORVR vehicles remain in the State highway fleet, there is a small, but everdecreasing, level of future emission reduction that could be achieved from Stage II Systems. However, the State has demonstrated that statewide overall benefits from Stage II Systems become zero during the mid-2017 to mid-2021 timeframe; that is, Stage II System implementation provides no net difference in the total VOC emission. Because the timing of this proposed rulemaking coincides with the mid-2017 and mid-2021 timeframe (i.e., the effective date for N.J.A.C. 7:27-16.3 is on or before December 23, 2020), the removal of the Stage II program from the SIP will not interfere with the State's attainment of the ozone NAAQS.

b. CAA Section 184(b)(2) comparable measure

⁶ The years in between 2014 and 2018 were interpolated and the years after 2018 were extrapolated.

Because New Jersey is located in the northeast Ozone Transport Region, under CAA Section 184(b)(2), the State must adopt and implement either Stage II controls at GDFs or control measures capable of achieving emission reductions comparable to those achievable through Stage II Systems. The State conducted a statewide comparable measure analysis in accordance with the EPA Guidance that shows that phasing out the Stage II program would result in zero or *de minimis*⁷ incremental loss of area wide emission control during the mid-2017 and mid-2021 timeframe. This is because as the number of ORVR vehicles increases, the efficiency of refueling ORVR vehicles at the Stage II GDFs decreases.

In determining the optimal period for requiring the decommissioning of Stage II Systems (i.e., mid-2017 and mid-2021), the State analyzed Stage II related gasoline throughput distribution (i.e., amount of gasoline dispensed) and the associated inefficiency that is due to ORVR-Stage II incompatibilities. The State's review included: permitting and enforcement data; existing EPA and CARB throughput distribution estimates; and an NJDEP-administered survey of GDFs. The State examined the effect on incremental loss of a range of gasoline throughputs (i.e., 29 to 71 percent) that would occur at vacuum-assist facilities from the years 2014 to 2022. Based on its analysis, the State concluded that the incremental potential loss of area wide emission control for in the five representative counties under study would be *de minimis* under the EPA Guidance. *See* summary in Appendix A in the Docket. For example, Appendix A shows that for Middlesex County in the year 2017, if 29 percent of the gasoline throughput were to occur at Stage II facilities, given widespread use of ORVR-equipped vehicles, the incremental loss of emissions would be 3.5 percent; and if 71 percent of the gasoline throughput were to occur at Stage II facilities, the incremental loss would be 0.45 percent. Thus, the incremental loss

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⁷ The EPA Guidance defines *de minimis* as an incremental loss of 10% or less. The EPA Guidance at p. 6.

⁸ NJDEP (2014). "NJDEP survey of gasoline dispensing facilities conducted in January of 2014," on file with NJDEP.

would be less than 10 percent (*de minimis* under the EPA Guidance) for 2017. The State's full analysis shows that for all the years under study (i.e., 2014 to 2022) and for all five counties, the incremental loss would be *de minimis* under the EPA Guidance.

As part of the throughput distribution analysis, the State also undertook a determination of the "crossover period," the timeframe over which use of Stage II Systems is expected to yield no net difference in controlled emissions and therefore represents the ideal time for the State to phase out the use of Stage II controls. The crossover period for New Jersey is from mid-2017 to mid-2021. The proposed rule amendments require decommissioning of ORVR-incompatible Stage II Systems on or before December 23, 2020, a date that is well within the projected crossover period. Therefore, the State's analysis has demonstrated that the decommissioning compliance date will not result in emission increases, hence the State will not need to adopt and implement any additional Stage II controls at GDFs or control measures capable of achieving emission reductions comparable to those achievable through Stage II Systems.

c. CAA Section 193 anti-backsliding

CAA Section 193 applies to nonattainment areas in states that adopt Stage II control programs into the SIP prior to November 15, 1990 and prohibits modification of any control unless the modification insures equivalent or greater emission reductions. As discussed above, the State adopted the Stage II program in 1988 and, therefore, must show that the proposed action will not result in backsliding of the ozone nonattainment requirements for the State.

To demonstrate compliance with CAA Section 193, the State used the EPA Guidance's Delta Equation 2 to show that the removal of Stage II Systems will have no impact on area-wide emissions reductions based on the difference between Stage II and ORVR efficiencies. As stated in Section V.a. above, the State demonstrated that statewide overall benefits from Stage II

Systems would become zero during the mid-2017 and mid-2021 crossover period. Because Stage II decommissioning compliance date of on or before December 23, 2020 falls well within the crossover period, EPA finds no potential for backsliding.

VI. What action is EPA proposing to take?

The EPA is proposing to approve the State's November 29, 2017 SIP revision, which would incorporate into the State's SIP N.J.A.C. 7:27-16.3, "Gasoline Transfer Operations." The SIP revision would allow for strengthening the Stage I vapor recovery requirements and decommissioning of Stage II Systems at GDFs. The EPA's proposal is based on the conclusion that the SIP revision conforms with the EPA Guidance, will not interfere with any applicable requirement of any NAAQS or with other applicable requirements of the CAA, and meets all applicable requirements of the CAA. The proposed gasoline transfer operation provisions will reduce emissions of gasoline vapors resulting in a reduction of VOCs, which contribute to the formation of ozone.

The State's November 29, 2017 SIP revision is approvable under CAA section 110(1) because VOC emissions increase that may have occurred between the years 2017 to 2021 are too small to interfere with attainment and reasonable further progress towards attainment of ozone NAAQS. The State's SIP submission also demonstrates that continuing a Stage II vapor recovery program would have resulted in an increase in refueling emissions due to excess emissions resulting from incompatibility between the ORVR and Stage II Systems. Preventing an increase in refueling emissions is consistent with non-interference requirements of the CAA Section 110(1).

The revision to the SIP also satisfies the "comparable measures" requirement of CAA section 184(b)(2), which requires OTR states proposing to remove Stage II control programs to

implement measures that would achieve "comparable," and not "equivalent," reductions to existing Stage II programs. As stated in the EPA Guidance, "the comparable measures requirement is satisfied if phasing out a Stage II control program in a particular area is estimated to have no, or a *de minimis*, incremental loss of area-wide emission control." In this case, the State has demonstrated that any temporary emissions increase resulting from phasing out of Stage II controls during the years 2017 to 2021 would be *de minimis*.

Finally, the State has satisfied the anti-backsliding requirements of CAA Section 193. The compliance date of on or about December 23, 2020 for decommissioning Stage II Systems and removal of the Stage II program from the SIP is well within the crossover period of mid-2017 and mid-2021 timeframe.

The State's November 29, 2017 comprehensive SIP submittal also proposed amendments for the air permitting program and for t-butyl acetate emission reporting requirements. However, the EPA will act on these amendments in a separate action.

The EPA is soliciting public comments on the issues discussed in this notice. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to this proposed rule by following the instructions listed in the ADDRESSES section of this Federal Register.

VII. Incorporation by Reference

In this document, the EPA is proposing to include regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference revisions to NAJC 7:27-16.3, "Gasoline Transfer Operations" as described in this preamble.

The EPA has made, and will continue to make, these documents generally available electronically through http://www.regulations.gov and in hard copy at the appropriate EPA regional office, 290 Broadway, 25th floor, New York, New York, 10007-1866. Please contact the person identified in the FOR FURTHER INFORMATION CONTACT section of this preamble for more information.

VIII. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Clean Air Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);

- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).
 In addition, this proposed rule does not have tribal implications as specified by Executive

Order 13175, because the SIP is not approved to apply in Indian country located in the state, and the EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

List of Subjects 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Volatile organic compounds, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 et seq.

Dated: November 13, 2019. Peter D. Lopez,

Regional Administrator,

Region 2.

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